

Claims

1. An immunostimulant oligonucleotide, characterized in that it comprises at least one nucleotide sequence having the following formula:
5' TTN₁N₂TT 3', in which T signifies thymine, and N₁ and N₂ may each represent adenine, thymine, cytosine or guanine, and in that it lacks a dinucleotide CG in which the cytosine C is not methylated.
2. The oligonucleotide as claimed in claim 1, characterized in that it comprises from 6 to 100 nucleotides.
3. The oligonucleotide as claimed in claim 1, characterized in that N₁ represents adenine and in that N₂ represents guanine.
4. The oligonucleotide as claimed in one of the preceding claims, characterized in that the 5' T T N₁ N₂ T T 3' unit is repeated at least once.
5. The oligonucleotide as claimed in the preceding claim, characterized in that the 5' T T N₁ N₂ T T 3' unit is repeated twice.
6. The oligonucleotide as claimed in either of claims 4 and 5, characterized in that the repeated 5' T T N₁ N₂ T T 3' units are separated by a nucleotide N₃ which, each time, may be identical or different, and which may represent A, C, T or G.
7. The oligonucleotide as claimed in the preceding claim, characterized in that the nucleotide N₃ separating the first two TTN₁N₂TT units read when the sequence is in the 5' → 3' orientation represents cytosine.

Sub
A

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8. The oligonucleotide as claimed in one of the preceding claims, characterized in that it comprises the sequence 5' TTAGTTCTTAGTTN₃TTAGTT 3', in which A represents adenine, T represents thymine, G represents guanine and C represents cytosine, and in which N₃ may signify A, T, C or G.

9. The oligonucleotide as claimed in one of the preceding claims, characterized in that it is capable of inducing human lymphocyte proliferation.

10. The oligonucleotide as claimed in one of the preceding claims, characterized in that it is capable of inducing cytokine secretion.

11. The oligonucleotide as claimed in the preceding claim, characterized in that it is capable of producing IL 10 secretion.

12. The oligonucleotide as claimed in claim 10, characterized in that it is capable of inducing γ interferon secretion.

13. The oligonucleotide as claimed in one of the preceding claims, characterized in that it is capable of increasing the expression of the activation marker CD86 on human B lymphocytes.

14. The oligonucleotide as claimed in one of the preceding claims, characterized in that it is capable of increasing the expression of the cytokine receptor CD25 on human B lymphocytes.

15. The use of an oligonucleotide as claimed in one of the preceding claims, for manufacturing a medicinal product.

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A'

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16. The use of an oligonucleotide as claimed in one of claims 1 to 10, for manufacturing a human immunostimulant.

5 17. The use of an oligonucleotide as claimed in one of claims 1 to 10, for manufacturing an immunization adjuvant.

10 18. The use of an oligonucleotide as claimed in one of claims 1 to 10, for manufacturing an immunization composition.

15 19. An immunization composition for human use, comprising at least one immunization antigen, characterized in that it also comprises at least one oligonucleotide as claimed in one of claims 1 to 10.

add A³

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